# Why the Florida Bay Science Program Works

The success of the interagency Florida Bay Science Program derives from the capabilities of its Program Management Committee (PMC). The PMC is the committee of science managers responsible for coordinating the Program. The many tangible accomplishments of the Program attest to its success. These include formulation of a strategic science plan to guide the overall research, four general science conferences, periodic review of the Program by a standing panel of distinguished independent scientists, topical workshops convened on topics of special concern, and, recently, implementation of several activities to synthesize research results for restoration managers. These accomplishments are all the more remarkable in view of the fact that the Program operates without its own budget and has no permanent staff.

Natural resource managers seek to emulate the Florida Bay Science Program in other subregions of South Florida. The success of these efforts depends on paying attention to the factors that define and sustain the Florida Bay Science Program as a distinct entity. These factors have allowed the PMC to function effectively for a relatively long period, even while it exists outside of a well-defined organizational structure, which most research programs rely on for support. Managers must understand what is at work here, how they can reproduce this elsewhere, and what are the benefits of doing so.

On the surface, it is evident that activities of the PMC reinforce patterns of social interaction valued by the scientific community. These include networking to build personal relationships, decision-making by consensus and free exchange of information. The PMC is effective because its members direct these activities to support agency goals by translating management objectives into research questions and coordinating a program that addresses these questions. While this is a fair, though brief, characterization of the Program, it gives little guidance on how to reproduce these functions elsewhere and what is required to sustain them over the long-term.

One way of answering these questions is by recognizing that the PMC as an example of a "community of practice," one mode of self-maintaining group behavior (see "Communities of Practice: The Organizational Frontier," by E.C. Wenger and W.M. Snyder. *Harvard Business Review*. Jan-Feb 2000, pp139-145). Community of practice is a term referring to a group of people bound by shared expertise and interest in a topic or an enterprise. Communities of practice are by nature informal, self-selecting and self-directed. They share some characteristics of work teams and networks, which are frequently employed by managers, except that managers cannot simply mandate that a community of practice will exist. In this sense, communities of practice exist outside of the formal structure of an organization. However, when the interests of the community align with the goals of an organization, a community of practice can expand and enhance the capabilities of that organization.

While a community of practice cannot be created by mandate, there are some things that managers can do to encourage their formation and sustain them once they form. These

include many of the things that organizations already do to support a staff of scientists or engineers, things like providing open access to internet resources, providing time and travel expenses to attend group meetings, and making sure that participation in such activities is recognized by the organization. What may be new and difficult for managers will be extending this support to participation in community activities that occur outside of the organization or of a recognized professional association.

A particularly effective mechanism for strengthening a community of practice is dedicating staff to support the activities of the community. To be beneficial, support staff must work at the direction of the community, not the organization. For the past two years, the PMC has benefited from the support of a senior scientist filling the role of Staff Officer. This position has been funded with Department of Interior research funds as an "integrative research project." The Staff Officer has primary responsibility in the Program for program integration and synthesis of research results. In pursuing these goals, the Staff Officer also provides general support to the Program by facilitating the activities and serving as liaison to the cooperating agencies and resource managers. In other regional restoration efforts, such as the Chesapeake Bay Program, agencies allocate permanent staff positions to fill this vital support role.

A common paradox for managers working with communities of practice is that their value cannot be measured directly from their activities. This is because communities of practice produce and disseminate knowledge, and the value of that knowledge accrues to its members in their "official" roles in the cooperating agencies. In the case of the Florida Bay Science Program, each agency contributes based on its particular mandate, e.g. fisheries management, protecting water quality, etc. However, the return is vastly magnified by the organization's access to a comprehensive ecological research program. This is obtained at the marginal cost of supporting the activities of its representative on the PMC and participation of its scientists on the research teams that are another, integral part of the Program.

The effectiveness of participants in the Program is enhanced by a more general knowledge of Florida Bay and close communication with knowledgeable peers in cooperating agencies. As a result, broad consensus on emerging issues can be obtained quickly and supported with the relevant scientific information. Or, if relevant scientific information is not available, then a plan for research to resolve outstanding issues can be quickly formulated, presented to managers for approval, and implemented. This enhances decision-making within each agency and each agency's ability to communicate with policy makers and with the public.

The Florida Bay Science Program works because its Program Management Committee operates effectively, and it has done so since the inception of the Program. This is not simply a lucky occurrence that managers will be hard-pressed to repeat. The PMC employs a mode of self-organization that is recognized to occur in other situations, and it is reproducible. Resource managers can draw on the experience of other managers in working with and nurturing similar groups. This is what makes the Florida Bay Science Program such an attractive model for an interagency science program.